

REMARKS

Claims 4, 6-26, 35, and 36 are pending in the application. Claims 4, 6, 12, 22, and 26 are currently amended. Claims 1-3, 5, and 27-34 are canceled. Applicants respectfully request further consideration of the claims, in view of the amendments set forth above and the following remarks.

I. Claim Rejections under 35 U.S.C. 112

Claims 22 and 25-34 are rejected under 35 U.S.C. 112 first paragraph, as failing to comply with the written description requirement. The Examiner alleges that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Office Action, p. 2. Applicants traverse the rejection.

Claim 22 depends from claim 4 and specifies a first semantic structure, a second semantic structure, and translation. To expedite prosecution, Applicants amend the claim to recite "wherein the article's representation of the finding has a first format and wherein the translation of the finding includes a translation of the finding into a natural language having a second format." Exemplary support for translating from one format to another is found in paragraph 118.

Claim 25 depends from claim 4 and specifies that the structured finding comprises a first object and a second object. Exemplary support is found in paragraph 71, which states "[a] fact may be comprised of discrete objects and processes" wherein the term "object" is used in the plural form, "objects." This provides basis for first and second objects, such as the example finding in paragraphs 71 and 72, "GST-bax binds to bc2," which "comprises two discrete objects, namely 'GST-bax' and 'bc2'."

Claim 26, as previously presented, depended from claim 25 and specified that the second object is an additional process or pathway. To expedite prosecution, Applicants amend this claim to depend from claim 12 and recite "wherein the structured finding comprises an object, a process and a process relationship." Exemplary support for a process relationship between an object and a process is found in paragraph 71, which teaches that "[p]rocesses are actions that act on targets which are also discrete objects, or other processes." This provides basis for an object, a process and a process relationship as recited by the amended claim.

In order to expedite prosecution, claims 27-34 are canceled.

Thus, basis is provided for claims 22 and 25-26 as described above. Rejection of canceled claims 27-34 is moot. Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. 112.

II. Claim Rejections Under 35 U.S.C. 103

Claim Amendments and Related Arguments

Claim 4 is currently amended and incorporates the originally filed claim 5. Claim 5 is canceled. No new matter is added with the amendments. Applicants believe that the claims rejected under 35 U.S.C. 103 are not obvious for the reasons outlined below.

Claims 4-16, 18 and 20-36 are Rejected under 35 U.S.C. 103

Claims 4-16, 18 and 20-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication Number 2002/0165737 issued to Howard E. Mahran ("Mahran") and US Patent Number 5,625,721 issued to Daniel P. Lopresti et al ("Lopresti").

Claims 4-11

Applicants traverse the rejections. However, to expedite prosecution, Applicants have amended independent claim 4 to incorporate dependent claim 5. Claim 4 now recites "wherein the information extraction is performed by knowledge extraction personnel," "verifying ... the information extracted from the selected articles by knowledge extraction personnel" and "wherein the verification is performed by quality control personnel." Claim 4 is further amended to recite "verifying that the information extracted ... has been placed in the correct format for storage in the knowledge representation." As of these amendments, the rejection of claim 4 is moot and Applicants address the rejection of claim 5.

The Examiner rejects claim 5 by alleging that Mahran discloses i) "selecting articles to serve as an information source for a knowledge representation," ii) "extracting and formatting information contained in the articles ... including representing a fact expressed in an article's natural language as at least an object and process relationship," iii) "storing the formatted information in the knowledge representation," and iv) "the extracting information step is performed by knowledge extraction personnel." Office Action, pp. 4-5. The Examiner further alleges that Lopresti discloses "verifying

that the information extracted from the articles is correct and that it has been placed in the correct format” and “the verifying step is performed by quality control personnel.” Office Action, p. 5.

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143. As noted by the Examiner, Mahran does not disclose a “verifying” step. Office Action, p. 5. Lopresti is directed towards a method to improve automated Optical Character Recognition (OCR) scanning because of technological limitations such as “character misinterpretation” and “layout-dependent” errors. See Lopresti col. 2, lines 12-16. Lopresti describes human error processing as expensive in terms of cost and time. See Lopresti col. 2, lines 22-26.

Amended claim 4 recites “verifying ... the information extracted ... by knowledge extraction personnel.” In contrast, Lopresti discloses correcting information extracted by computer scanning. Thus, Lopresti does not disclose verifying information extracted “by knowledge extraction personnel” as recited by claim 4. Furthermore, claim 4 recites verifying that the “information extracted ... has been placed in the correct format for storage in the knowledge representation.” Lopresti also fails to disclose this claim element. Fixing character misinterpretation and layout-dependent errors does not verify that information is “in the correct format for storage in the knowledge representation.” Thus, the combination of Mahran and Lopresti fails to disclose all elements of claim 4 and a prima facie case of obviousness cannot be made over the references.

Claim 5 is canceled.

Claims 6-11 depend from claim 4 and are rejected for obviousness under the same combination of Mahran and Lopresti. As noted above, the combined references fail to disclose all elements of independent claim 4. Thus, the combination also fails to render dependent claims 6-11 as obvious for at least the reasons cited above.

Because a prima facie case of obviousness cannot be made over Mahran and Lopresti, and because claim 5 is canceled, applicants respectfully request that the Examiner withdraw the obviousness rejections of claims 4-11.

Claims 12-16, 18, and 20-36

The Examiner rejects independent claim 12 by alleging that Mahran discloses “an information extraction unit which extracts a finding from an article’s natural language and translates

this finding into a structured finding comprising at least an object, process, and a relationship between the object and process.” Office Action, p. 7. The Examiner further alleges that Lopresti discloses “determining if the structured finding has been properly formatted for storage in the second database” at “column 2, lines 35-37, as human post-processor.” Office Action, p. 7. Applicants traverse the rejection. Applicants have amended claim 12 to recite “verifying whether the structured finding has been properly formatted.”

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143. Claim 12 recites “a database management unit ... for verifying whether the structured finding has been properly formatted for storage in the second database.” However, Mahran does not disclose verifying and Lopresti discloses correcting errors in a scanned document. In contrast, claim 12 recites verification of a “structured finding.” Moreover, correcting Lopresti’s “character misinterpretation” and “layout-dependent” errors is distinct from “verifying that the structured finding has been properly formatted for storage,” as recited by claim 12. Because the combination of Mahran and Lopresti fails to disclose all elements of claim 12, a prima facie case of obviousness cannot be made over the references.

Claims 13-36 depend from claim 12 and are rejected for obviousness under the same combination of Mahran and Lopresti. As noted above, the combined references fail to disclose all elements of claim 12. Thus, the combination also fails to render dependent claims 13-36 as obvious for at least the reasons cited above.

Because a prima facie case of obviousness cannot be made over Mahran and Lopresti for claims 12-36, and because claims 27-34 are canceled, Applicants respectfully request that the Examiner withdraw the obviousness rejections.

CONCLUSION

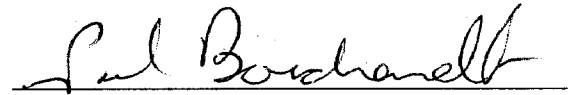
In view of the foregoing claim amendments and remarks, Applicants respectfully submit that the application is now in condition for allowance. Accordingly, favorable reconsideration and early allowance are requested.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 27763.703.301).

Respectfully submitted,

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